

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012342**Date Inspected:** 01-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	N/A	CWI Present:	Yes	No			
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006	Component:	Orthotropic Box Girder(OBG)				

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG TRIAL ASSEMBLY

SEGMENT: 6AW-6BW

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005256

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The member is identified as OBG Segment: 6AW-6BW (Deck panel, side panels, edge panels and Bottom panel.) Component. The weld designations are reviewed as follows:

1. OBW6-001
2. OBW6-002

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3. OBW6-003
4. OBW6-004
5. OBW6-005
6. OBW6B-005
7. OBW6B-004
8. OBW6B-003
9. OBW6B-002
10. OBW6B-001

SEGMENT: 6AW, 6BW (Panel Point#39~45)

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005242

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The member is identified as OBG Segment: 6AW, 6BW (Panel Point#39~45-Crossbeam side) Component. The weld designations are reviewed as follows: (MT has been performed to removal of punch list item #337.)

1. EP30-001-011,012,023,024.
2. EP30-002-053,054.
3. EP32-001-008,009,014,015,028,029.
4. EP32-002-043,044,037,038,049,050.

During Quality Assurance Magnetic Particle Testing (MT) review of welds located on Segment 6AW, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) Transverse Linear indication measuring approximately 08 mm in length.
 - The weld is identified as: EP30-002-054.
 - The weld is a fillet weld joining Edge plate to stiffener plate.
 - Segment 6AW is located near the OBG TRIAL ASSEMBLY AREA.
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- This indication has been ground out approximately 2 mm depth and re tested by MT found to be acceptable.

The Notice of Witness Inspection Number (NWIT) is 005242. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of these welds.

Applicable reference:

AWS D1.5 2002 figure 6.8 – specifies for fillet weld sizes between 6mm and 13mm the maximum discontinuity length is approximately 2mm to 4mm.

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks”.

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding,

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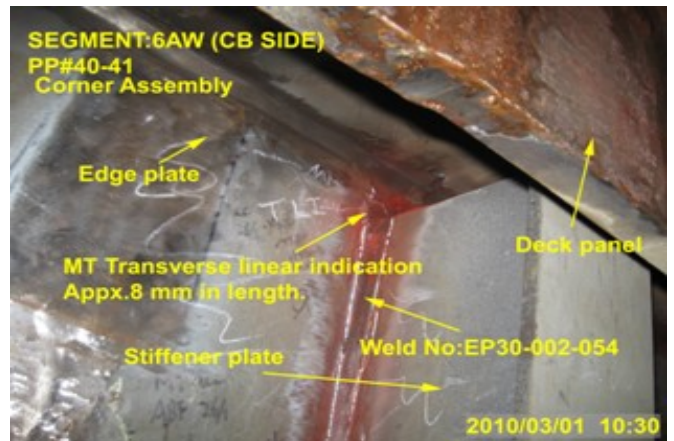
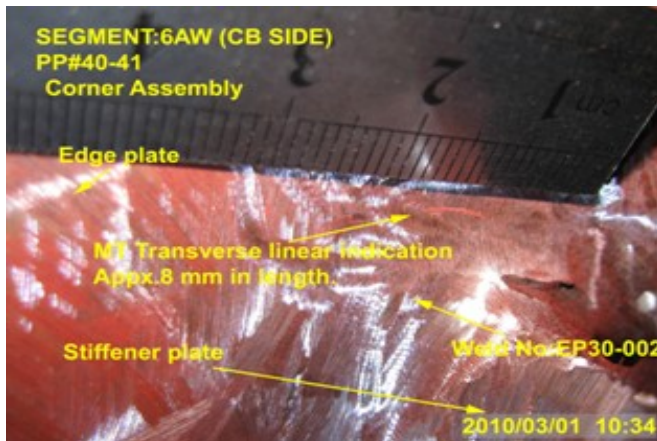
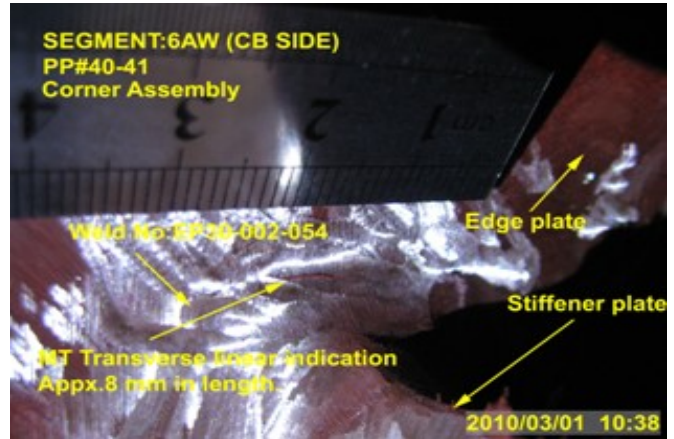
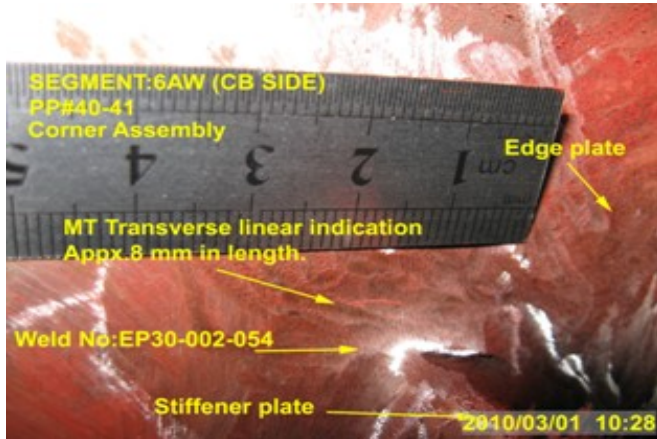
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and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

This QA notified ZPMC QC identified as Mr. Li Yang and ABF inspector identified as Mr.Zouhu of the above issue.

The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Prabhu,Surendra

Quality Assurance Inspector

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Reviewed By: Miller,Mark

QA Reviewer